

What is claimed is:

1. A method for searching an information repository, the repository characterized as a hierarchical object space, the method comprising the steps of:

establishing a collection of content pointers, each content pointer corresponding to an object;

5 receiving at least one subject keyword;

searching at least a portion of the collection of shared content pointers in accordance with the keyword query; and

deriving at least one additional keyword from the collection, the additional keyword associated with the query keyword.

10 2. The method of claim 1, further comprising the steps of:

augmenting the query with at the least one additional keyword derived from the collection;

searching the information repository in accordance with the augmented query;

retrieving a group of objects that match the augmented query;

15 identifying a context within the group of objects; and

ordering the group of retrieved objects based a computed match with the context.

3. The method of claim 2, wherein the context comprises a profile for a group of users chosen from a plurality of users.

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4. The method of claim 2, wherein the context comprises a profile for a single user chosen from a plurality of users.

5. The method of claim 4, wherein the profile comprises a content vector derived from at least one object represented by at least one content pointer in at least one selected topical category of objects contributed by the single user.

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6. The method of claim 3, wherein the profile comprises a content vector derived from at least one object represented by at least one content pointer in at least one selected topical category of objects contributed by the group.

7. The method of claim 2, wherein the context comprises a profile for the plurality of users, said profile comprising a content vector derived from at least one document represented by at least one content pointer in at least one selected topical category of content pointers contributed by the plurality of users.

8. The method of claim 2, wherein the context comprises a hierarchical relevance model.

9. The method of claim 2, further comprising the step of ordering the group of retrieved content pointers in a ranking order, the order determined by a weighted set of user metrics.

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10. The method of claim 9, wherein the set of user metrics are chosen from the group consisting of a popularity metric, a frequency of access metric, a recency of access metric, and a link structure metric.

5 11. The method of claim 2, wherein the searching step is performed by a search engine and wherein the ordering step is performed by a separate recommendation engine.

12. The method of claim 2, further comprising the steps of:
identifying a set of user metrics, the set of user metrics chosen from the group consisting of a
10 popularity metric, a frequency of access metric, a recency of access metric, and a link structure metric;
combining a computed match with the context, and at least one of the set of user metrics, for each content pointer into a composite measure; and
ordering the group of retrieved objects based on the composite measure.

13. The method of claim 12, further comprising the steps of:
identifying a group of users comprising at least one user selected from a plurality of users;
15 and
wherein, the set of user metrics are identified with respect to the group of users.

20 14. A method for searching an information repository, the information repository characterized as a topical hierarchical object space, the method comprising the steps of:

establishing a collection of content pointers, the content pointers corresponding to objects contained within the information repository, each contributed by at least one user of a plurality of users, the collection organized in accordance with a topical categorical hierarchy;

searching at least a portion of the collection of shared content pointers in accordance with a

5 keyword query;

augmenting the query with at least one additional keyword derived from the collection;

searching the information repository in accordance with the first keyword and the additional keyword; and

retrieving at least one of a group of objects, each including content indicia, at least one
10 content index matching the query keyword.

15 15. The method of claim 14, wherein the augmenting step comprises the step of identifying a context within the collection, the at least one additional keyword derived from within the context.

16. The method of claim 15, wherein the context comprises a profile, the profile selected from a group consisting of a user profile for a single user chosen from the plurality of users, a group profile for a group of users chosen from the plurality of users, and a profile for the plurality of users.

20 17. The method of claim 16, wherein the profile is derived from at least one object represented by at least one content pointer in at least one selected topical category of content pointers contributed by at least one user.

18. The method of claim 15, wherein the collection of content pointers is established by at least one user and wherein the context is derived from the topical categorical organization of the collection.

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19. The method of claim 18, wherein the collection of content pointers is established by a group of users and wherein the context is derived from the topical categorical organization of the collection.

20. The method of claim 18, wherein the context is passed to a search engine as a content vector, the search engine retrieving at least one of a group of objects whose content index matches the context.

21. The method of claim 20, further comprising the step of ordering the retrieved objects in a ranking order, the order determined by a degree of matching between each object's content index and the context.

22. The method of claim 21, wherein the searching step is performed by a search engine and wherein the ordering step is performed by a separate recommendation engine.

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23. The method of claim 14, further comprising the steps of:
identifying a context within the collection of content pointers;

identifying a set of user metrics, the set of user metrics chosen from the group consisting of a popularity metric, a frequency of access metric, a recency of access metric, a link structure metric and a topical categorical organizational metric;

combining a computed match with the context, and at least one of the set of user metrics, for
5 each content pointer into a composite measure; and
ranking the group of retrieved objects based on the composite measure.

24. The method of claim 23, further comprising the steps of:

identifying a group of users comprising at least one user selected from the plurality of users;

10 and

wherein, the set of user metrics are identified with respect to the group of users.

25. A method for searching an information repository comprising the steps of:

establishing a collection of content pointers, the content pointers corresponding to objects
15 contained within the information repository, each contributed by at least one user of a plurality of users, the collection organized in accordance with a topical categorical hierarchy;

receiving at least one query keyword from a user;

searching the information repository in accordance with the query;

retrieving a group of documents, each document of the group including content indicia, at

20 least one content index matching the query keyword; and

ordering the retrieved documents in a ranking order, the order determined by a context derived from the topical categorical organization of the collection.

26. The method of claim 25, wherein the collection of content pointers is a user accessible local object space defined by a computer program, the method further comprising:

accessing a particular one of the topical categories comprising the hierarchy; and

5 wherein the context is derived from a topical content index associated to the accessed topical category.

27. The method of claim 25, further comprising:

searching at least a portion of the collection of shared content pointers in accordance with the

10 query; and

augmenting the query with at least one additional keyword derived from the collection.

28. The method of claim 25, further comprising:

searching at least a portion of the collection of shared content pointers in accordance with the

15 query; and

augmenting the query with at least one content vector derived from the context.

29. The method of claim 25, further comprising:

augmenting the query with at least one additional keyword derived from the collection to

20 define an augmented query keyword; and

searching the information repository; and

retrieving at least one of a group of documents, each including content indicia, at least one content index matching the augmented query keyword.

30. The method of claim 29, wherein the augmented query keyword is derived from the
5 collection context.

31. A method for generating ordered recommendations of content sources from an information repository comprising the steps of:

10 establishing a collection of content pointers, the content pointers corresponding to objects contained within the information repository, each contributed by at least one user of a plurality of users, the collection organized in accordance with a topical categorical hierarchy;

receiving at least one query keyword;

searching the information repository;

retrieving a group of objects that each includes a content profile matching the query keyword;

15 identifying a context within the collection; and

ranking the group of content sources based on a computed match between each object's content profile and the identified context.

32. The method of claim 31, wherein the context is derived from the topical categorical
20 organization of the collection.

33. The method of claim 31, wherein the context comprises a profile, the profile selected from a group consisting of a user profile for a single user chosen from the plurality of users, a group profile for a group of users chosen from the plurality of users, and a profile for the plurality of users.

5 34. The method of claim 32, wherein the context comprises a profile, the profile derived from at least one object represented by at least one content pointer in at least one selected topical category of content pointers contributed by at least one user.

35. The method of claim 31, wherein the ranking step further comprises the step of
10 ordering the group of retrieved content sources in accordance with a set of user recommendation priority metrics.

36. The method of claim 35, wherein the user recommendation priority metrics are
15 chosen from the group consisting of a popularity metric, a frequency of access metric, a recency of access metric, and a link structure metric.

37. The method of claim 31, further comprising the steps of:
identifying at least one associate keyword from within the collection;
augmenting the query with at least one associate keyword derived from the collection;
20 searching the information repository; and
retrieving at least one of a group of objects, each including a content profile matching the augmented query keyword.

38. The method of claim 37, wherein the augmented query keyword is derived from the collection context.

5 39. A method of structuring a collection of shared content pointers contributed by a plurality of users, wherein each shared content pointer is associated with a content source, the content pointers organized into a hierarchy of topical categories, comprising the steps of:

receiving a data item identifying a content source;

40 determining a category of the collection of shared content pointers in which to store the data item; and

storing the data item as a content pointer in the determined category of the collection.

40 40. The method of claim 39, wherein the step of determining a category further comprises the steps of:

15 identifying a topic corresponding to the content source;

comparing the topic to a first list of topics in a user-specific hierarchy of categories;

if the topic is in the first list, identifying the category within the user-specific hierarchy corresponding to the topic;

if the topic is not in the first list,

20 comparing the topic to a second list of topics in a global hierarchy of categories;

if the topic is in the second list,

identifying the category within the global hierarchy corresponding to the topic; and

establishing a category within the user-specific hierarchy corresponding to the topic;

5 if the topic is not in the second list,

establishing a category within the global hierarchy corresponding to the topic; and

establishing a category within the user-specific hierarchy corresponding to the topic.

10 41. The method of claim 40, wherein each user has a user-specific hierarchy of categories, and a global hierarchy of categories comprises an aggregation of all user-specific hierarchies.

15 42. The method of claim 40, wherein the global hierarchy of categories is initially determined by the steps of:

for each content pointer in the collection of shared document content pointers, identifying a profile corresponding to the content pointer;

clustering the profiles into a plurality of clusters; and

20 recursively repeating the clustering step on each cluster in the plurality of clusters to derive a hierarchy of clusters; and

storing the hierarchy of clusters as the global hierarchy of categories.

43. A method for displaying a group of content pointers selected from a collection of content pointers the content pointers corresponding to objects contained within an information repository, each content pointer contributed by at least one user of a plurality of users, the collection
5 organized in accordance with a topical categorical hierarchy, the method comprising:

selecting a display mode for the group of content pointers;

accessing the collection of content pointers; and

displaying the selected group of content pointers in accordance with the selected display mode.

44. The method according to claim 43, wherein the selected display mode is a mode selected from the group consisting of a list mode, a URL mode and a title mode, each respective one of the group of content pointers being displayed in accordance with the selected mode.

45. The method according to claim 44, wherein each respective one of the group of content pointers displayed in accordance with the selected mode further includes a corresponding detail notation.

46. The method according to claim 45, wherein the detail notation is selected from the
20 group consisting of a URL, a title, a topic category, a topical description, and a content summary.

47. The method according to claim 43, wherein the display mode is a mode selected from the group consisting of a 2-D mode and a 3-D mode.

48. The method according to claim 47, wherein each respective one of the group of
5 content pointers displayed in accordance with the selected mode further includes a corresponding detail notation.

49. The method according to claim 47, wherein the detail notation is selected from the group consisting of a URL, a title, a topic category, a topical description, a content detail, a content
10 summary, and a content transformation.